

Work Order ID 127726

127726

Page 1

Friday, January 09, 2015 10:10:33 AM

Item ID: D412-775-013

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Step Protective Trim

Start Date: 12/15/2014 Start Qty: 2.00

2

Cust Item ID:

Required Date: 12/19/2014 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: MLS

Date: 14-12-23

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

DSI 9503

A

IIN D412-775

Rev A

DAS
86
9-89

MLS 15-04-09

100

Document Control

0.00

100

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D412-775-013 CHG003

2x

DAS
46
9-89

APR 10 2015

105

Pick Kit

0.00

105

Packaging

Memo

0.00

Packaging

DAS
83
9-89

APR 09 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 127726

127726

Page 2

Friday, January 09, 2015 10:10:33 AM

Item ID: D412-775-013

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Step Protective Trim

Start Date: 12/15/2014 Start Qty: 2.00

2

Cust Item ID:

Required Date: 12/19/2014 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	QC4- 100% Inspect kits for completeness	0.00							
110									
QC	Memo	0.00							
Quality Control									
120		0.00							
120	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-775-013								
	Location: <u>P6004</u>								
	PPP Rev: _____								
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	0.00							
Quality Control									

(2x)

DAS
46
9-89

APR 10 2015

2

APR - 0 2015

DAS
15-4

MCS 15-04-13

NE
15-4-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Friday, January 09, 2015 10:10:40 AM

Page 1

Work Order ID: 127726

127726

Parent Item: D412-775-013

D412-775-013

Parent Item Name: Step Protective Trim

Start Date: 12/15/2014

Required Date: 12/19/2014

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A 08-12-10 new issue DD verified by:ec IPP Rev:B add pick
kit DD 10.02.18 Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3608-1 <i>~</i> *D3608-1* Lower Doubler	DAS 46 9-89	Manufactured	No			110	Each	3.0000	1 **	2 128524		DAS 06 9-88	

Location Loc Qty Loc Code

ST505 3

122733 3

D3608-3
*~**D3608-3*
Upper Doubler
DAS
46
9-89

Manufactured No

110 Each 4.0000 1 2

**

APR 09 2015

DAS
06
9-88

Location Loc Qty Loc Code

ST505 4

122616 2

127544 2

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data									
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Material									
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Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-775 REV. A
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-775 REV. 0

REF. TCCA STC SH08-53
REF. FAA STC SR02692NY
REF. EASA STC EASA.IM.R.S.01529

It has come to Dart's attention that due to variances in airframe, the D3608-1/-3 Lower/Upper Doublers of the D412-775-013 Step Protective Trim Kit at CHG 001 may not always fit as intended. To ensure proper fit, Dart has made changes to both D3608-1/-3 Doublers at CHG 002 and later.
The manuals listed above are amended as follows:

IS:

INSTALLATION INSTRUCTIONS IIN-D412-775 REV. A, SECTION 3.2

3.2.5 Locate the D3608-1/-3 Doublers per Figure 3 and 4 and transfer drill #28 ($\varnothing 0.141"$) holes from the aircraft to the D3608-1/-3 Doublers. Bend tabs on D3608-1/-3 Doublers as shown in Figure 1 of this service instruction and trim rectangular opening as required to fit airframe.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-775 REV. 0, SECTION 53.4

53.4.2 Locate the D3608-1/-3 Doublers per Figure 53-2 and 53-3. If the D3608-1/-3 doublers are being replaced, transfer drill #28 ($\varnothing 0.141"$) holes from the aircraft to the D3608-1/-3 Doublers. Bend tabs on D3608-1/-3 Doublers as shown in Figure 1 of this service instruction and trim rectangular opening as required to fit airframe.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

WAS:

INSTALLATION INSTRUCTIONS IIN-D412-775 REV. A, SECTION 3.2

3.2.5 Locate the D3608-1/-3 Doublers per Figure 3 and 4 and transfer drill #28 ($\varnothing 0.141"$) holes from the aircraft to the D3608-1/-3 Doublers.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-775 REV. 0, SECTION 53.4

53.4.2 Locate the D3608-1/-3 Doublers per Figure 53-2 and 53-3. If the D3608-1/-3 doublers are being replaced, transfer drill #28 ($\varnothing 0.141"$) holes from the aircraft to the D3608-1/-3 Doublers.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

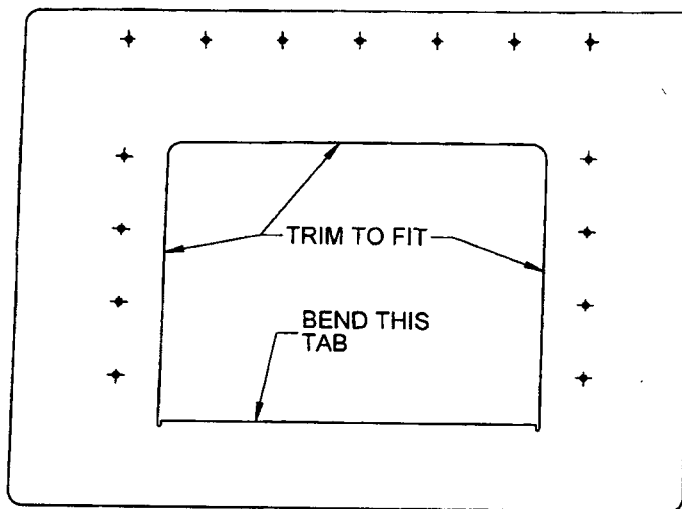
BY:

D. SHEPHERD (DE # 02)

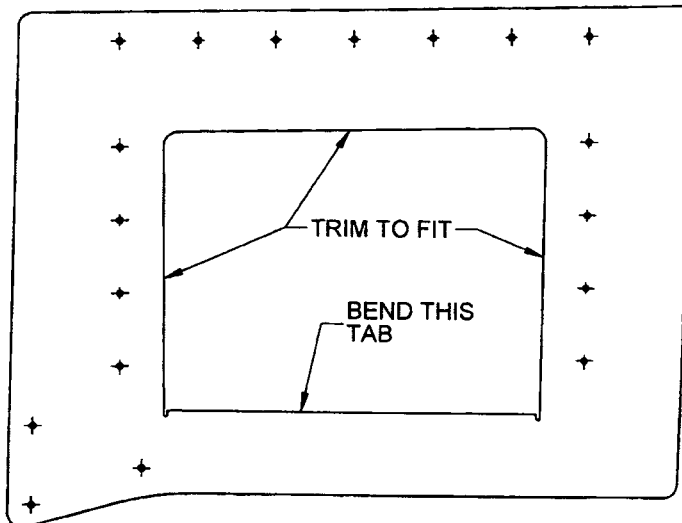
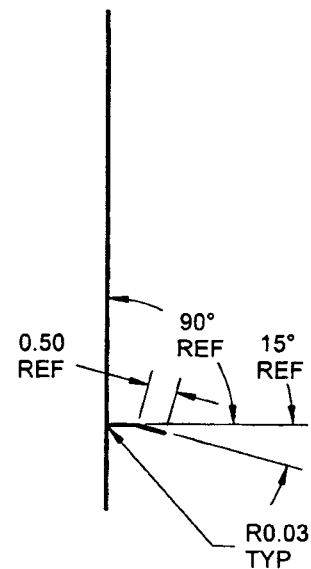
DATE: 10.02.05
CERT. NO.: SH08-53
ISSUE NO.: 1

A	NEW ISSUE	MB	10.02.05
REV.		BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9503	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		STEP PROTECTIVE TRIM CHG NTS	
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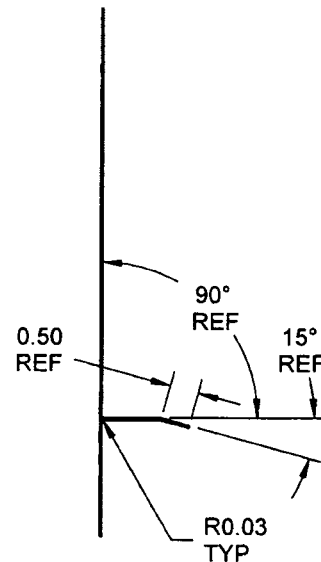
ENCLOSURE COPY
RETURN TO
127726 MJS
14-12-05



D3608-3 BENT UPPER DOUBLER



D3608-1 BENT LOWER DOUBLER



CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 10.02.05
CERT. NO.: SH08-53
ISSUE NO.: 1

FIGURE 1: TRIMMING/BENDING OF D3608-1/-3 DOUBLERS
(PARTS SHOWN PRIOR TO TRANSFER DRILLING)

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9503	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		STEP PROTECTIVE TRIM CHG	NTS
DATE	10.02.05	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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